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Semi-Automatic Rifle/Pistol Reloading Press

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by

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As the number of sportsman reloading their own ammunition grows each year, a need for a more advanced press has arisen.. This report shows the criteria, design, fabrication and testing of this press. The press modification greatly reduces the time needed to reload a box of ammunition without giving up the personal touch and feel of reloading that you lose with a fully automatic press.

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INFORMATIVE ABSTRACT

More than 3 million gunowners practice the reloading of their own ammunition. Along with the needs of local law enforcement agencies provides a large market. The main advantage of reloading is the cost savings. .30-06 ammo off the shelf sells for about 8.00 dollars for 20 shells. Reloading that same ammo would save 5.00 dollars a box. The prototype press is a turret press adapted to a standard Lyman T-Mag press. The dies are indexed by means of an electrically activated clutch. The main components comprising the press are: 1) Lyman T-Mag press; 2) Warner Model CB-6 Wrap Spring Clutch; 3) Browning AKH-154 &AK-28 Sheaves; 4) Browning 4L610 V-belt; 5) 1/3 HP, 1720 RPM, 115VAC electric motor; 6) Allen Bradley Palm Button Switch. The v-belt drive system was obtained from Browning Fractional Horsepower Drive Tables. A computor program was employed to find a safe turret size. Based on inertia requirements the program provided a listing of diameters and thicknesses along with the corresponding inertia. A size was selected between the allowed inertia limits. A full scale prototype was manufactured. All machine work was completed at the IPFW machine shop. Assembling of the press was completed at my grand fathers house and in my apartment. Testing the prototype press showed that it could reload 100-120 shells per hour. This is compared to 24 shells per hour reloaded with hand tools and 75 shells per hour by a manually operated turret press. The prototype price came to approximately $500.00 dollars. A production model could be manufactured for approximately $300-350.00 dollars.